MULTIMEDIA ⬛ UNIVERSITY

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FINAL EXAMINATION

TRIMESTER 3, 2017 / 2018

PCA 0084 – COMPUTER SYSTEM AND WEB DESIGN
(Foundation in Business)

4 JUNE 2018
2.30pm – 4.30pm
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 3 pages (excluding the cover page) with 5 questions only.

2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

QUESTION 1 [10 Marks]

a. Explain the difference between a *standalone computer* and a *networked computer*.

(2 marks)

b. A general purpose computer is made up of **FOUR (4)** separate hardware components. What are they?

(2 marks)

c. Describe how the following printers print characters on paper.
   i. Ink jet printer
   ii. Laser printer
   iii. Dot-matrix printer

(3 marks)

d. Match the descriptions in the right column with the device in the left column of **Table 1**.

Table 1

Devices	Descriptions
___ i. Pointing devices	A. CRT, LED, LCD
___ ii. Monitor	B. Can turn scanned documents into machine-readable form
___ iii. Keyboard	C. Produce audio output
___ iv. Headset	D. Biometric device
___ v. OCR device	E. Mouse, trackball, touchpad
___ vi. Fingerprint scanner	F. QWERTY and Dvorak designs

(3 marks)

QUESTION 2 [10 Marks]

a. Secondary storage has two components: *storage media* and *storage devices*. Explain the difference in terms of their functions between storage media and storage devices.

(2 marks)

b. The speed of a computer is determined by many elements, some related to hardware and some related to software. Point out and describe **FOUR (4)** hardware components contribute to the speed of a computer.

(4 marks)

c. Discuss the problem and solution associated with the heat generated by the processor in a computer.

(2 marks)

d. Explain the concept of data representation in digital computers.

(2 marks)

Continued ...

QUESTION 3 [10 Marks]

a. An operating system (OS) is the most important software that runs on a computer and without it, a computer is useless.
   i. Discuss any **THREE (3)** functions of OS.

(3 marks)

   ii. Name at least **TWO (2)** common operating systems for personal computers.

(1 mark)

b. Name the utility program to do the following task.
   i. To prevent, search, detect, and remove malicious software like worms, Trojans and adware.
   ii. To detect and protect a personal computer from unauthorized intrusions.
   iii. To reduce the file size of one file or to group many files and archive them into one file which can reduce the disk space.
   iv. To display, organize, copy, rename, delete, move and sort files and folders.

(2 marks)

c. As mentioned in class, there are **FOUR (4)** groups of application software. Name them and explain, in brief, the uses of each group of the software and give at least **ONE (1)** example of program of each group.

(4 marks)

QUESTION 4 [10 Marks]

a. Refer to **Figure 1**. Network A and Network B are among the most common LAN network topologies proposed for student use in the secondary school or small college campus. However, they also have disadvantages. Name the topology of Network A and Network B and explain at least **TWO (2)** disadvantages of each topology.

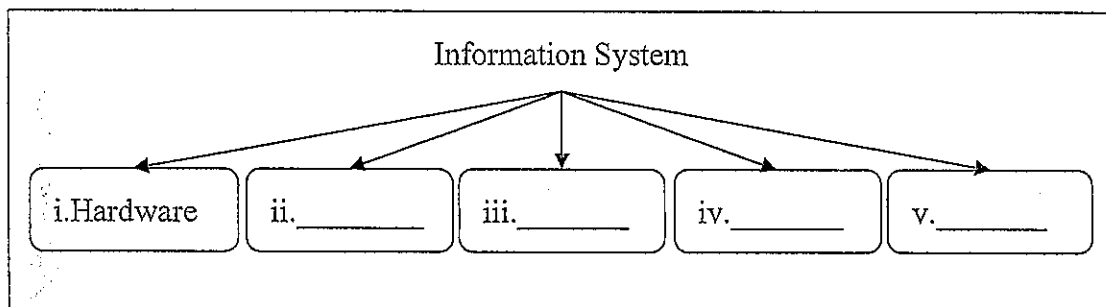Network A   Network B

Figure 1

(3 marks)

b. Network communication standards and protocols provide the essential rules that enable hardware and software to work together and allow devices to communicate over both wired and wireless computer networks. Name **THREE (3)** of them and briefly explain how they work.

(3 marks)

Continued ...

c. Why are graphics important in a multimedia presentation? Discuss.

(2 marks)

d. Besides graphics, there are few more elements that are considered as multimedia elements. Name **TWO (2)** and explain why you think the elements are also important to be placed in a multimedia presentation.

(2 marks)

QUESTION 5 [10 Marks]

a. Database software, often called a database management system (DBMS) is a very important to business organizations. Why? Suggest **FOUR (4)** reasons.

(2 marks)

b. **Diagram 1** below illustrates the five general components of information systems. The first component is given. Complete the diagram by providing another **FOUR (4)** components.

Information System

| i.Hardware | ii._____ | iii._____ | iv._____ | v._____ |

Diagram 1

(2 marks)

c. Hackers, crackers, script kiddies and corporate spies are a person or group of individuals associated with computer crimes. Define *computer crimes* and its difference from *cybercrime*.

(2 marks)

d. Many companies and schools have problem with hardware theft and vandalism.
  i. What is the difference between *hardware theft* and *vandalism*?

(2 marks)

  ii. Identify **FOUR (4)** security techniques to prevent hardware theft and vandalism.

(2 marks)

End of Paper